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DATE(S) ISSUED:

11/10/2021

SUBJECT:

A Vulnerability in Palo Alto PAN-OS Could Allow for Arbitrary Code Execution

OVERVIEW:

A vulnerability has been discovered in Palo Alto PAN-OS that could allow for arbitrary code execution. PAN-OS is the software that runs on all Palo Alto Network firewalls. Successful exploitation of this vulnerability could allow for arbitrary code execution. Depending on the privileges associated with the user, an attacker could then install programs; view, change, or delete data; or create new accounts with full user rights. Users whose accounts are configured to have fewer user rights on the system could be less impacted than those who operate with administrative user rights.

THREAT INTELLIGENCE:

There are currently no reports of this vulnerability being exploited in the wild.

SYSTEMS AFFECTED:

Palo Alto PAN-OS versions prior to 8.1.17

RISK:

Government:

Large and medium government entities: High

• Small government entities: **Medium**

Businesses:

Large and medium business entities: High

• Small business entities: Medium

Home users: Low

TECHNICAL SUMMARY:

A memory corruption vulnerability has been discovered in Palo Alto PAN-OS that could allow for arbitrary code execution. To successfully exploit, the attacker must have access to the network and to the GlobalProtect interface. When exploited, an attacker can disrupt system processes and potentially execute arbitrary code with root privileges.

Successful exploitation of this vulnerability could allow for arbitrary code execution. Depending on the privileges associated with the user, an attacker could then install programs; view, change, or delete data; or create new accounts with full user rights. Users whose accounts are

configured to have fewer user rights on the system could be less impacted than those who operate with administrative user rights.

RECOMMENDATIONS:

The following actions should be taken:

- Apply appropriate patches or mitigations provided by Palo Alto to vulnerable systems immediately after appropriate testing.
- Run all software as a non-privileged user (one without administrative privileges) to diminish the effects of a successful attack.
- Apply the Principle of Least Privilege to all systems and services.

REFERENCES:

Palo Alto:

https://security.paloaltonetworks.com/CVE-2021-3064

CVE:

https://cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2021-3064

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